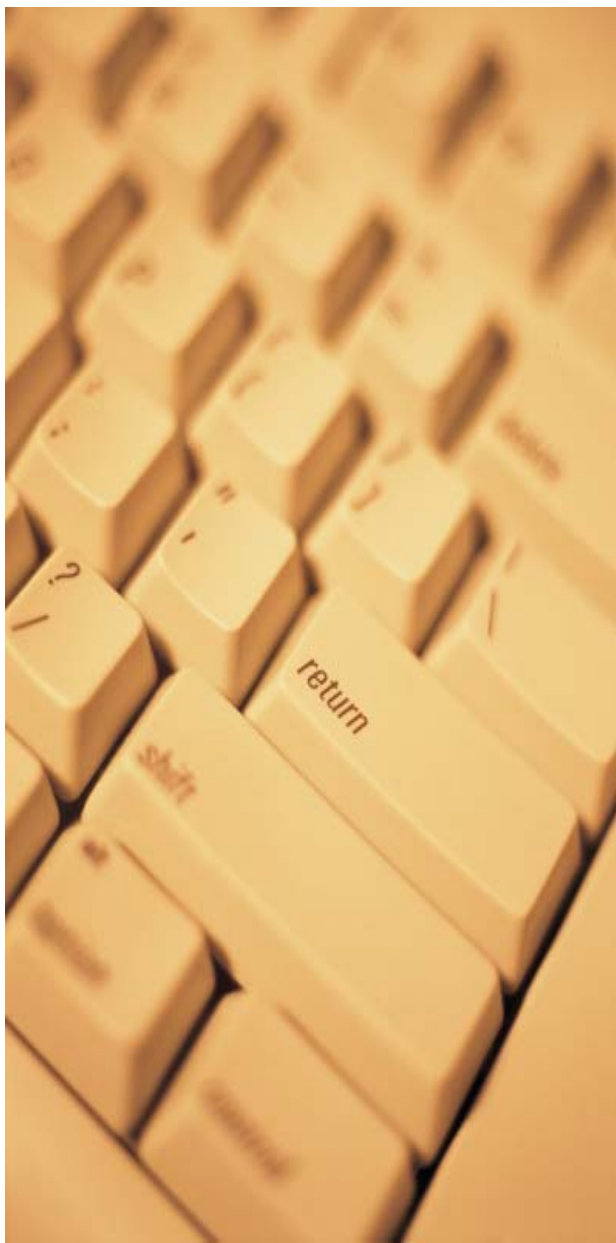


# Summer Tech RESOURCE GUIDE FOR GIRLS

## SUMMER 2003



The future is here!

*This summer you could...*

Combine computers, imagination, and teamwork to create anything from a website to a movie storyboard

Spice up your website with animated clipart and digital photos

Design a 21st century dream house using computer-aided design

Build your own robot and program it to navigate and retrieve items

Explore science and engineering through exciting, hands-on activities

Technology is the key ---  
The key to summer fun!  
The key to well-paid  
interesting jobs of the future!  
The key to your success!

Summer 2003 is the time to discover new talents and explore new interests.  
The summer camps listed inside can help you do it...

# SUMMER YOUTH TECHNOLOGY PROGRAM



## Virginia Tech and Falls Church City Public Schools

Aspiring astronomers, architects, web designers, writers, and computer gurus share exciting high-tech adventures; turn technology inside out; and beef up their brainpower in math, science, and computers. Hands-on exercises – using computers and real-life scientific puzzles – help young people excel in school and introduce them to careers in fast-growing, high-tech fields.

Now in its 3rd year, Virginia Tech and Falls Church City Public Schools are offering nine exciting programs for rising 6<sup>th</sup> –9<sup>th</sup> graders with a range of computer skills and interests:

- **Girls On Line (GOL):** Explore technology through engaging, hands-on activities. Take apart and rebuild a computer. Create Power Point presentations, design web pages, and communicate with students around the world. Research interesting careers through exciting field trips and learn the role technology plays in those careers. (July 21-August 1)
- **Computer Animation & Digital Photography:** Smile! Say Cheese! Then do a dance please! Learn how to spice up web pages and school projects with animated clipart and digital photography. Create your own digital sketchbook. Learn to scan negatives, make greeting cards, photo collages, and more. (July 7-18)
- **Web Site Design and Layout:** Create web pages using publishing and graphics programs. Learn HTML

commands and how to use editors to produce text, graphics, and animation. (Two sessions: July 7-18 and July 21-August 1)

- **Robotics:** Explore the exciting world of Robotics using both real and simulated robots. Within a few hours, you will be programming a robot to move using the commands you have programmed into its “brain.” Your robot will perform tasks like navigating and retrieving items. More experienced students will broaden their programming experience to make their robots perform more challenging tasks. (Two sessions: July 7-18 and July 21-August 1)
- **Virtual Reality:** Experience virtual reality by creating a 3D world using Virtual Reality Modeling Language. Publish your project on the World Wide Web. In Virtual Reality/Level II, students will learn how to design and implement a collaborative virtual world. (Level I: July 7-July 11 and July 14-18; Level II: August 4-8)
- **Computer Aided Design:** Learn to draw, animate, and manipulate 3D models using Computer Aided Design (CAD). Use multi-media software to create a final project. (July 21-August 1)
- **Navigating the Universe:** Investigate the wonders of our celestial surroundings. Map the stars and the planets. Use computers and the Internet to investigate the mysteries of our Universe and communicate with astronomers around the world. (August 4-8)

Camps will be held from 9 a.m. until 3 p.m. Monday through Friday at the George Mason Middle and High School campus and the Virginia Tech Northern Virginia Center. Both facilities are located next to the West Falls Church Metro Station.

Tuition is \$225 for one-week programs and \$375 for two-week programs. Scholarships are available. For more information, call 703-538-8335 or 703-248-5686 or email [sguiffre@vt.edu](mailto:sguiffre@vt.edu). Register online at <http://www.conted.vt.edu/sytp/index.htm>.



# SUMMER YOUTH TECHNOLOGY PROGRAM



## Northern Virginia Community College Loudoun Campus

unveils its Summer Institutes for Young People, offering 4<sup>th</sup>-9<sup>th</sup> graders the opportunity to explore computers, theatre, or leadership.

- **Computer Institute for Young People:** Computers, software, imagination, and teamwork ... put them all together and you come up with the beginning formula to create anything from a web site to a movie storyboard.

With a focus on both technology and team dynamics, campers will spend part of their day in the computer lab working on individual and group projects and part of their day working on team and interpersonal communication skills.

In the lab, material covered includes Word, PowerPoint, Excel, how to use a digital camera, Photoshop, HTML and/or FrontPage, Internet research and programming using Visual Basic. The technical skills learned in the computer lab will be combined with the team/interpersonal skills acquired in the team dynamics exercises to create a movie storyboard based on a "Travel in Time."

Camps run from 9 a.m. until 4 p.m. Monday through Friday. Program cost for the two week session is \$595.

Rising 4<sup>th</sup> and 5<sup>th</sup> graders – July 7-18

Rising 6<sup>th</sup>-8<sup>th</sup> graders – July 21-August 1

- **Leadership Institute for Young People:** Today's young leaders are tomorrow's directors and CEOs. The Leadership Institute allows participants to discover, develop, and expand their leadership skills in an exciting hands-on program.

Beginning with a behavior preference self-assessment, participants will explore their own communication and behavior styles and how these relate to others on an individual or group basis. Through group discussion and experiential activities, participants will address topics such as communications, team dynamics, the role of trust and respect in relationships, conflict resolution, effective negotiations, time management, and more.

Participants will then apply these leadership skills by acting as Project Managers with the Computer Institute work groups as they create their movie storyboard. In the role of project manager, they will facilitate the scheduling and assigning of tasks, and work with small teams as they create their final presentation. As team leaders, they will share their experiences with other Leadership Institute members as they explore the diverse dynamics within their teams.

In addition, Leadership Institute members will participate in a half-day team-building program and work with instructors to examine the team process and uncover "lessons learned" at the program's conclusion.

The Leadership Institute is designed for rising 7<sup>th</sup>-9<sup>th</sup> graders who are involved or may wish to be involved in positions of leadership, including student organizations, athletic programs, activity clubs, peer helpers, community or religious groups.

Rising 7<sup>th</sup>-9<sup>th</sup> graders: July 7-18 from 9 a.m. until 4 p.m. Monday through Friday. Program cost is \$495 for the two-week program.

For more information about these programs or the Summer Theatre Institute or to register by phone, call 703-450-2551.



# SUMMER YOUTH TECHNOLOGY PROGRAM

## Northern Virginia Community College - Alexandria Campus

offers two exciting programs for rising 5th - 7th graders:

### RoboCamp4

Do you have a "LEGOmaniac" in the house who is really into computers and/or electronic games? Is your middle-schooler ready for computer programming even though it won't be offered until high school? have you been looking for a "really cool" camp for your middle-schooler?

For the fourth consecutive year, NVCC Alexandria is offering RoboCamp for rising 5th, 6th and 7th graders. RoboCamp is an intensive (10 days, 6 hours per day) introduction to real and virtual robotics. The LEGO "Mindstorms" system is used to teach students to build and control real, wireless, mobile robots. These robots can respond to their environment through the use of touch, light, and temperature sensors, and can solve problems involving mazes and physical tasks. Virtual Robotics is learned with "MicroWorlds," the world's easiest computer programming language. Campers will program their "turtles" in the LOGO language to draw and animate geometric shapes, negotiate mazes, construct interactive games, and devise their own virtual pet.

*RoboCamp4A* (July 7-18) is designed for beginners in programming but experts in LEGO building.

*RoboCamp4B* (July 21-August 1) is designed for experienced programmers (including students who participate in RoboCamp4A) and expert LEGO builders.

Camp runs from 9 a.m. to 3 p.m. Monday through Friday. Program cost is \$425 for the two week program. Space is limited, be sure to register early!

### Boat Building and Water Ecology

Working with the Alexandria Seaport Foundation, campers will build a seaworthy boat under the guidance of a master boat builder. Campers are out in boats every day of the one week camp. They will also go fishing, test the water, identify native and exotic species, sail, row, and muck through the wetlands!! On the last day we have a parade of boats.

While exploring the local wetlands and waterways, they will learn about marine ecology with field studies. Campers keep a field journal and perform basic analysis of the health of the water. In addition to using boats, the students get to ride aboard the Alexandria Seaport Foundation's working dory, the "Potomac."

Computers and technological tools are used for information access and scientific analysis.

Two one-week sessions will be offered (July 14-18 and July 21-25). Camp runs from 9 a.m. to 4 p.m.

Program cost for the one week program is \$475. Space is limited, be sure to register early!! Registration deadline is June 27 for the first session and July 7 for the second session.

To register, contact the Office of Continuing Education at (703) 845-6240

## Northern Virginia Community College - Woodbridge Campus

Offers eight new technology camps and courses for middle school students:

(Complete course descriptions will be available soon)

Camps:

**Exploration Camp I & II** (Ages 9-12): Tennis, Golf, and Computers

**Get Wired & Get Hired Computer Camp** (8<sup>th</sup>-10<sup>th</sup> graders)

Courses:

**Build a Web Site Quick and Easy** (Age 12 and up)

**Buttons, Bullets & Backgrounds** (Age 12 and up)

**Introduction to Programming using Visual Basic** (Age 12 and up)

**Using Publisher** (Age 10-13)

**Word Processing** (Age 10-13)

**Keyboarding and Word Processing** (4<sup>th</sup>-6<sup>th</sup> graders)

